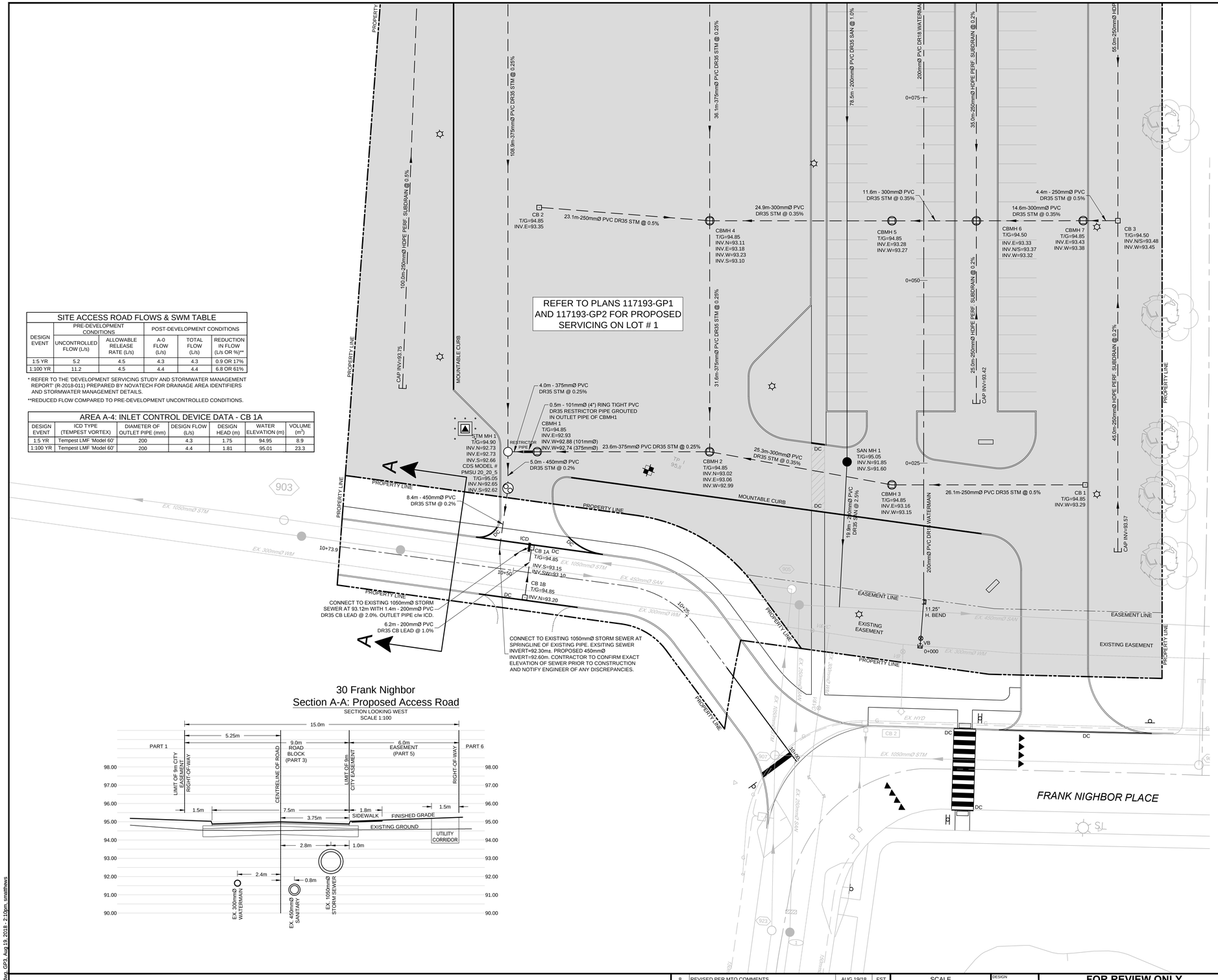
SITE ACCESS ROAD FLOWS & SWM TABLE					
DESIGN EVENT	PRE-DEVELOPMENT CONDITIONS		POST-DEVELOPMENT CONDITIONS		
	UNCONTROLLED FLOW (L/s)	ALLOWABLE RELEASE RATE (L/s)	A-0 FLOW (L/s)	TOTAL FLOW (L/s)	REDUCTION IN FLOW (L/s OR %)**
1:5 YR	5.2	4.5	4.3	4.3	0.9 OR 17%
1:100 YR	11.2	4.5	4.4	4.4	6.8 OR 61%

* REFER TO THE 'DEVELOPMENT SERVICING STUDY AND STORMWATER MANAGEMENT REPORT' (R-2018-011) PREPARED BY NOVATECH FOR DRAINAGE AREA IDENTIFIERS AND STORMWATER MANAGEMENT DETAILS.

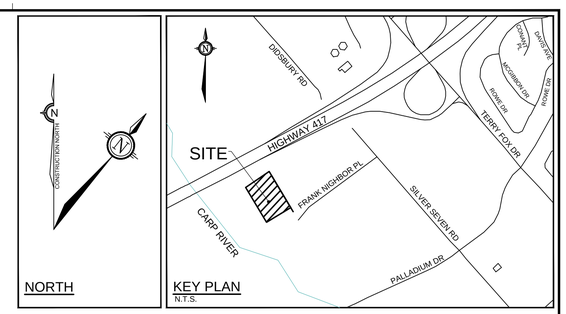
**REDUCED FLOW COMPARED TO PRE-DEVELOPMENT UNCONTROLLED CONDITIONS.

AREA A-4: INLET CONTROL DEVICE DATA - CB 1A						
DESIGN EVENT	ICD TYPE (TEMPEST VORTEX)	DIAMETER OF OUTLET PIPE (mm)	DESIGN FLOW (L/s)	DESIGN HEAD (m)	WATER ELEVATION (m)	VOLUME (m^3)
1:5 YR	Tempest LMF 'Model 60'	200	4.3	1.75	94.95	8.9
1:100 YR	Tempest LMF 'Model 60'	200	4.4	1.81	95.01	23.3



30 Frank Nighbor
Section A-A: Proposed Access Road

SECTION LOOKING WEST
SCALE 1:100



LEGEND

- SAN MH 1 — PROPOSED SANITARY MH & SEWER
- CBMH 3 — PROPOSED CATCHBASIN MANHOLE c/w 3.0m RADIAL SUBDRAINS PER GETOTECH & SEWER
- STM MH 1 — PROPOSED STORM MANHOLE & SEWER
- CB 2 — PROPOSED CATCHBASIN c/w 3.0m RADIAL SUBDRAINS PER GETOTECH AND LEAD
- HYD — VB — PROPOSED HYDRANT AND VALVE
- PROPOSED BARRIER CURB
- DC — PROPOSED DEPRESSED CURB
- 200mmØ — PROPOSED WATERMAIN AND DIAMETER
- VB — PROPOSED VALVE AND VALVEBOX
- BEND — PROPOSED BEND AND THRUSTBLOCK 11.25°, 22.5°, 45° or TEE
- PROPOSED CAP
- ICD — PROPOSED INLET CONTROL DEVICE
- RD — ROOF DRAIN
- THERMAL INSULATION FOR SHALLOW SEWERS
- PROPOSED BUILDING ENTRANCE
- C.S. — PROPOSED CLAY SEAL SEEPAGE BARRIER (PER GEOTECHNICAL REPORT)
- PROPOSED RETAINING WALL

- PROPERTY LINE
- SAN/MH — EXISTING CONCRETE CURB
- CBMH — EXISTING SANITARY MANHOLE AND SEWER
- STM/MH — EXISTING CATCHBASIN MANHOLE
- CB — EXISTING STORM MANHOLE AND SEWER
- HYD — EXISTING CATCHBASIN C/W CATCHBASIN LEAD
- EX UP — EXISTING HYDRANT
- 300mmØ WM — EXISTING UTILITY POLE C/W GUY WIRES
- HYD — VB — EXISTING WATERMAIN
- LS — EXISTING HYDRANT C/W VALVE & LEAD
- EXISTING LIGHT STANDARD
- EXISTING FENCE
- OHW — EXISTING OVERHEAD UTILITY WIRES
- PROPOSED WATER METER AND REMOTE METER
- PROPOSED LIGHT STANDARD
- PROPOSED TRANSFORMER
- AREA UNDER SITE PLAN DEVELOPMENT APPLICATION FOR THE CAMP MART SITE

GENERAL NOTES:

1. COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
2. DETERMINE THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. PROTECT AND ASSUME RESPONSIBILITY FOR ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON THIS DRAWING.
3. OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF OTTAWA BEFORE COMMENCING CONSTRUCTION.
4. BEFORE COMMENCING CONSTRUCTION OBTAIN AND PROVIDE PROOF OF COMPREHENSIVE, ALL RISK AND OPERATIONAL LIABILITY INSURANCE FOR $5,000,000.00. INSURANCE POLICY TO NAME OWNERS, ENGINEERS AND ARCHITECTS AS CO-INSURED.
5. RESTORE ALL DISTURBED AREAS ON-SITE AND OFF-SITE, INCLUDING TRENCHES AND SURFACES ON PUBLIC ROAD ALLOWANCES TO EXISTING CONDITIONS OR BETTER TO THE SATISFACTION OF THE CITY OF OTTAWA AND ENGINEER.
6. REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL, ORGANIC MATERIAL AND DEBRIS UNLESS OTHERWISE INSTRUCTED BY ENGINEER. EXCAVATE AND REMOVE FROM SITE ANY CONTAMINATED MATERIAL. ALL CONTAMINATED MATERIAL SHALL BE DISPOSED OF AT A LICENSED LANDFILL FACILITY.
7. ALL ELEVATIONS ARE GEODETIC.
8. REFER TO GEOTECHNICAL REPORT (NO. PG4409-1, DATED FEBRUARY 9, 2018), PREPARED BY PATERSON GROUP INC., FOR SUBSURFACE CONDITIONS, CONSTRUCTION RECOMMENDATIONS, AND GEOTECHNICAL INSPECTION REQUIREMENTS. THE GEOTECHNICAL CONSULTANT IS TO REVIEW ON-SITE CONDITIONS AFTER EXCAVATION PRIOR TO PLACEMENT OF THE GRANULAR MATERIAL.
9. REFER TO ARCHITECT'S AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUILDING AND HARDSURFACE AREAS AND DIMENSIONS.
10. REFER TO DSS & SWM REPORT (R-2018-011) PREPARED BY NOVATECH ENGINEERING CONSULTANTS LTD.
11. SAW CUT AND KEY GRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE IN POINTS AS PER CITY OF OTTAWA STANDARDS (R10).
12. PROVIDE LINE/PARKING PAINTING.
13. CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GENERAL PLAN OF SERVICES INDICATING ALL SERVICING AS-BUILT INFORMATION SHOWN ON THIS PLAN. AS-BUILT INFORMATION MUST INCLUDE: PIPE MATERIAL, SIZES, LENGTHS, SLOPES, INVERT AND T/G ELEVATIONS, STRUCTURE LOCATIONS, VALVE AND HYDRANT LOCATIONS, T/WM ELEVATIONS AND ANY ALIGNMENT CHANGES, ETC.

SEWER NOTES:

1. SUPPLY AND CONSTRUCT ALL SEWERS AND APPURTENANCES IN ACCORDANCE WITH THE MOST CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS.
2. SPECIFICATIONS:

ITEM	SPEC. No.	REFERENCE
CATCHBASIN (600x600mm)	705.010	OPSD
STORM / SANITARY MANHOLE (1200mmØ)	701.010	OPSD
CB, FRAME & COVER	400.020	OPSD
STORM / SANITARY MH FRAME & COVER	401.010	OPSD
WATERTIGHT MH FRAME AND COVER	401.030	OPSD
SEWER TRENCH	S6	CITY OF OTTAWA

STORM SEWER	PVC DR 35
SANITARY SEWER	PVC DR 35
CATCHBASIN LEAD	PVC DR 35

3. ALL STORM AND SANITARY SERVICE LATERALS SHALL BE EQUIPPED WITH BACKFLOW PREVENTION DEVICES AS PER THE CITY OF OTTAWA STANDARD DETAILS S14 AND S14.1 OR S14.2.
4. INSULATE ALL PIPES (SAN/STM) THAT HAVE LESS THAN 1.5m COVER WITH HI-40 INSULATION PER INSULATION DETAIL FOR SHALLOW SEWERS. PROVIDE 150mm CLEARANCE BETWEEN PIPE AND INSULATION.
5. SERVICES ARE TO BE CONSTRUCTED TO 1.0m FROM FACE OF BUILDING AT A MINIMUM SLOPE OF 1.0%.
6. PIPE BEDDING, COVER AND BACKFILL ARE TO BE COMPACTED TO AT LEAST 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. THE USE OF CLEAR CRUSHED STONE AS A BEDDING LAYER SHALL NOT BE PERMITTED.
7. FLEXIBLE CONNECTIONS ARE REQUIRED FOR CONNECTING PIPES TO MANHOLES (FOR EXAMPLE KOR-N-SEAL, PSX: POSITIVE SEAL AND DURASEAL). THE CONCRETE CRADLE FOR THE PIPE CAN BE ELIMINATED.
8. THE OWNER SHALL REQUIRE THAT THE SITE SERVICING CONTRACTOR PERFORM FIELD TESTS FOR QUALITY CONTROL OF ALL SANITARY SEWERS. LEAKAGE TESTING SHALL BE COMPLETED IN ACCORDANCE WITH OPSS 410.07.16, 410.07.16.04 AND 407.07.24. DYE TESTING IS TO BE COMPLETED ON ALL SANITARY SERVICES TO CONFIRM PROPER CONNECTION TO THE SANITARY SEWER MAIN. THE FIELD TESTS SHALL BE PERFORMED IN THE PRESENCE OF A CERTIFIED PROFESSIONAL ENGINEER WHO SHALL SUBMIT A CERTIFIED COPY OF THE TEST RESULTS.
9. ALL STORM MANHOLES AND CATCHBASIN MANHOLES ARE TO HAVE 300mm SUMPS UNLESS OTHERWISE INDICATED. ALL CATCHBASINS ARE TO HAVE 600mm SUMPS UNLESS OTHERWISE INDICATED.
10. ALL CATCHBASINS, MANHOLES AND/OR CATCHBASIN MANHOLES THAT ARE TO HAVE ICD'S INSTALLED WITHIN THEM ARE TO HAVE 600mm SUMPS.
11. ALL WEEPING TILE CONNECTIONS ARE TO BE MADE TO THE PROPOSED STORM SEWER SYSTEM DOWNSTREAM OF ANY INLET CONTROL DEVICES.
12. CONTRACTOR TO TELEVISE (CCTV) ALL PROPOSED SEWERS, 200mmØ OR GREATER PRIOR TO BASE COURSE ASPHALT, UPON COMPLETION OF CONTRACT, THE CONTRACTOR IS RESPONSIBLE TO FLUSH AND CLEAN ALL SEWERS & APPURTENANCES.

NOTE:
THE POSITION OF ALL POLE LINES, CONDUITS, WATERMAINS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, DETERMINE THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

OWNER INFORMATION
764703 ONTARIO INC.
16 CONCOURSE GATE, SUITE 200
OTTAWA, ON, K2E 7S8
CAL KIRKPATRICK
PHONE: 1-613-225-8118
ckirkpatrick@colonnade.ca

No.	REVISION	DATE	BY
8	REVISED PER MTO COMMENTS	AUG 19/18	FST
7	REVISED PER CITY COMMENTS	JUL 27/18	FST
6	REVISED PER MTO COMMENTS	JUN 29/18	FST
5	ISSUED FOR TENDER	JUN 1/18	FST
4	ISSUED FOR BUILDING PERMIT	JUN 1/18	FST
3	REVISED PER CITY COMMENTS	MAY 24/18	FST
2	REVISED PER CITY COMMENTS	APR 23/18	FST
1	ISSUED FOR SITE PLAN APPROVAL	FEB 9/18	FST

SCALE
1:250
1:250
0 2 4 6 8 10

DESIGN SM / FST
CHECKED FST
DRAWN SM
CHECKED SM / FST
APPROVED FST

FOR REVIEW ONLY

LICENSED PROFESSIONAL ENGINEER F.S. THAUVETTE 100041399 PROVINCE OF ONTARIO Aug 19, 2018

NOVATECH
Engineers, Planners & Landscape Architects
Suite 200, 240 Michael Cowpland Drive
Ottawa, Ontario, Canada K2M 1P6
Telephone (613) 254-9643
Facsimile (613) 254-5867
Website www.novatech-eng.com

LOCATION
CITY OF OTTAWA
30 FRANK NIGHBOR PLACE - PRIVATE ACCESS ROAD

DRAWING NAME
GENERAL PLAN OF SERVICES

PROJECT No. 117193
REV REV # 8
DRAWING No. 117193-GP3

D07-12-18-0017

#17579

M:\2017\117193\CAD\Design\117193-GP.dwg, GP3, Aug 19, 2018 - 2:10pm, smatthews

PLAN24x36.DWG - 914.4mmx609.6mm